**17EC21P2 – BASIC SIMULATION LAB**

Minimum of 10 experiments to be completed out of the following:

**LIST OF EXPERIMENTS**

1. Basic Operations on Matrices
2. Generation on various Signals and Sequences (periodic and aperiodic)
3. Operations on Signals and Sequences
4. Finding the Even and Odd parts of Signal/Sequenceand Real and Imaginary part of Signal.
5. Convolution between Signals and Sequences
6. Auto Correlation and Cross Correlation between Signals and Sequences.
7. Verification of linearity and time invariance properties of a given continuous /discrete system.
8. Computation of unit sample, unit step and sinusoidal response of the given LTI system and verifying its physical reliability and stability properties.
9. Finding the Fourier transform of a given signal and plotting its magnitude and phase spectrum.
10. Waveform synthesis using Laplace Transform.
11. Locating the zeros, poles and plotting the pole zero maps in s-plane and z-plane for the given transfer function.
12. Sampling theorem verification